ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCE

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ASSESMENT OF NUTRITIONAL STATUS AMONG INSITITUTIONALIZED SCHOOL AGE ORPHANED AND VULNERABLE CHILDREN IN SELECTED ORPHANAGES IN ADDIS ABABA, ETHIOPIA

By:

Hanna Aderaw (BSc)

Advisors:

Seifu Hagos (MPH, MSc, PhD)

Yalemwork Getnet (BSc, MPH)

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APPROVAL SHEET

ADDIS ABABA UNIVERSITY SCHOOL OF GRADUATE STUDIES

I hereby certify that I have read and evaluated this thesis prepared on Nutritional Status among institutionalized school age orphans and vulnerable children in Addis Ababa, Ethiopia under my guidance by Hanna Aderaw. I recommend that it should be submitted as fulfilling the thesis requirement.

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Major advisor Signature Date

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Co-advisor Signature Date

As a member of the board of examiners the MPH Thesis Open Defense Examination, I certify that I have read and evaluated the Thesis prepared by Hanna Aderaw and examined the candidate. I recommend that the thesis be accepted as fulfilling the thesis requirements for the degree of Master of Public Health

_____ _____ _____

Chairperson signature Date

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Internal examiner signature Date

_____ _____ _____

External examiner Signature Date

Final approval and acceptance of the Thesis is contingent upon the submission of its final copy to the Council of Candidate Studies (CGS) through the candidate's department.

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Abbreviations and Acronyms

AIDS	Acquired immune Deficiency Syndrome
BAZ	Body Mass Index for age Z score
CDC	Center for Disease Control and Prevention
DDS	Dietary Diversity Score
EDHS	Ethiopian Demographic Health Survey
FAO	Food and Agriculture Organization
HAZ	Height for Age Z score
NCHS	National Center for Health Statistics
OVC	Orphan and Vulnerable children
RDA	Recommended daily allowance
SAM	Severe Acute Malnutrition
SPSS	Statistical Package of Social Sciences
UNICEF	United Nations International Children's Fund
WAZ	Weight for Age Z score
WHO	World Health organization

Abstract

Background

The nutritional status of young children is one of the sensitive indicators of sudden changes in health status and food availability. Orphans are potentially at greater risk of malnutrition because they are more likely to be extremely poor, receive less medical and social care. This segment of the population seeks immediate support for their survival and growth despite less number of orphanages compared to the magnitude of orphans. Despite the aforementioned nutritional concerns among these children, there exists an inadequate body of information about school age orphans and vulnerable children nutritional status in Ethiopia. Thus the objective of this study was to assess nutritional status and whether duration of institutionalization in the orphanage and illness in the last weeks had an effect on the nutritional status of school age orphan and vulnerable children in Addis Ababa, Ethiopia.

Methods: Institution based cross-sectional study was conducted in Addis Ababa. A representative sample size of 418 school age orphan and vulnerable children were selected to participate in the study. Simple random sampling technique was used to select the study participants. Interviewer administered questionnaire and anthropometric measurements were used to collect the data. The collected data was entered and processed with Epi data and Anthro plus, to analyze for z scores, and transferred to Statistical package for social science version 22.0 for further analysis. Multivariate analysis was used after setting statistical significance at $\alpha = 0.05$.

Result: A total of 391 school age orphans and vulnerable children took part in the study with a response rate of 93.5 %, of whom 310 (79.2%) were orphaned children. Among the children the prevalence of stunting was 21.5 %, Underweight 12.8 % and low BMI for age was 12 %. The odds of stunting in orphan and vulnerable children increased in those who stayed in the orphanage for greater than 10 years as compared to those who stayed in the orphanage for less than five years (AOR=5.81:95% CI;(2.27-14.8). Presence of illness in the last two weeks was associated with increased odds of low Body mass index for Age z score in orphan and vulnerable children who were ill in the last 2 weeks (AOR=5.01:95% CI;2.53-9.89).

Conclusion and recommendation: The proportion of under nutrition was moderate to high in school age orphaned and vulnerable children in the age group of 7-14. Long duration of stay in orphanages and presence of illness in the last two weeks were important predictors of stunting and low BMI for age Z scores respectively. To decrease the proportion of underweight in orphanage institutions and to improve the nutritional status of orphaned and vulnerable children , the orphanage administrations should work in improving the nutritional and health care services given to the orphans during institutionalization.

1. Introduction

1.1 Background

Malnutrition is poor state of health caused by inadequate intake of the required nutrients in the body and persists in all countries of the world in its many forms, but it is worse in developing countries where an estimated 174 million children under five years of age are malnourished, as indicated by low weight for age. It prevents individuals and even whole societies from achieving their full potential (1).

Under nutrition contributes to half of all deaths in children under five this translates to unnecessary loss of about 3 million young lives a year worldwide (2). Children who are under nourished have lowered resistance to infection and are more likely to die from common childhood illnesses such as diarrheal diseases, febrile illness and respiratory infections (3).

Currently 17.8 million orphan children in the world had lost both parents (double orphan) and 153 million children had lost either parents (single orphans). While 13 % of the World's Children under the age of 18 years live in Sub-Saharan Africa, 36 % of the World's orphans live in these regions (2). Within Ethiopia 5.5 million children, around 6 % of the total population, are categorized as orphans or vulnerable children (OVC). OVC comprise almost 12 % of Ethiopia's total child population and half of children below the age of five are stunted (3).

The nutritional status of young children is one of the sensitive indicators of sudden changes in health status and food availability acting as early warning signs of disasters, ill health and famine. Many orphan children are suffering from cycles of poverty as a result of death of their parents (5). Orphans are potentially at greater risk of malnutrition because they are more likely to be extremely poor, receive less medical and social care. This segment of the population seeks immediate support for their survival and growth despite less number of orphanages compared to the magnitude of OVC (6).

1.2 Statement of the problem

Malnutrition in all its forms remains a global concern, particularly affecting highly vulnerable population in several regions of the world. In 2016, under nutrition contributes to the death of around 3 million children and threatens the futures of hundreds of millions, undermining the healthy development of their bodies and their brains and affecting their ability to learn and to earn as adults. Under nutrition not only affect the health and wellbeing of individual children, but also undermines the strength of their societies by preventing children from achieving their full potential (7).

Malnutrition at the early stages of life can lower child resistance to infections, increase child morbidity and mortality, and decrease mental development and cognitive achievement. Adequate nutrition is the keystone of survival, health and development not only of current generations but also of the ones to come (3).

Under nutrition puts children at a greater risk of dying from common infections. It also increases the frequency and severity of such infections and contribute to delayed recovery. In addition, the interaction between under nutrition and infection can create potentially lethal cycle of worsening illness and deteriorating nutritional status (2).

Orphan children faced with many problems including the basic needs such as food, safe water, parental care, supervision and protection. As a result of this they suffer from malnutrition and poor health. Children living in orphanages tend to be neglected and become malnourished (4,29).

The children in orphanages had a significantly higher rate of stunting and underweight than the non-orphanage children. This was an indication that chronic malnutrition was more prevalent among the children in orphanages. But the non-governmental organizations operating in the areas have been supporting very few children with educational materials, health care cost and food. The supports being offered by the nongovernmental organizations were insufficient, intermittent, duplicated and limited to few children interims of their coverage. Consequently, a number of orphan and vulnerable children are still in a difficult situation and seek immediate attention (7, 9).

Malnourished children experience developmental delays, weight loss and illness as a result of in adequate intake of protein, calories and other nutrients. Orphaned and institutionalized children

may experience one or several macro nutrient deficiencies in particular zinc, iron and vitamin A. These were commonly associated with weakened immune function and a child may contract an infection due in part to poor nutritional status. Particularly, in institutions where there are poor sanitary practices, children are vulnerable to infections since they are at risk for a variety of short term and long term complications. Children living without permanent parental care are at highest risk for under nutrition, putting their health and development in great jeopardy. Yet without proper resources, caregivers and professionals are unable to meet the specific nutrition and feeding needs of these children (10).

Most studies comparing the anthropometric status of orphans and non-orphans have focused on children under five years old. Although there are studies conducted on the nutritional status of orphaned and school children in different parts of Ethiopia there was no study conducted on the nutritional status of institutionalized orphaned and vulnerable children in Addis Ababa. So this study was intended to fill this gap by assessing the nutritional status of school age orphaned and vulnerable children.

1.3 Significance of the study

Malnutrition is a huge public health problem in orphan children. But there is little evidence that indicates the nutritional status of institutionalized school age orphaned children in Ethiopia. This study was intended to fill this gap by assessing the nutritional status among institutionalized school age orphaned and vulnerable children in Addis Ababa.

The findings of this study will improve our knowledge on the nutritional status of orphanage children. The findings will also help governments, policy makers, non-governmental organizations and donors to make decisions to address the needs of institutionalized orphaned and vulnerable children and to provide holistic support for the orphanages. It will also be used as Baseline data for future nutrition intervention programs in orphanages.

2 Literature review

2.1 The situation of orphans and vulnerable children in the world

According to the 2016 Unicef report, an estimated 17 million children worldwide had lost one or both parents to AIDS. It is also indicated that more than 90 % of this children lived in sub-Saharan Africa (2).

It was also showed that many more orphans were orphaned for other reasons like, poverty, corruption, difficult adoption process and war (man-made disasters) (19). It's also revealed that orphans were considered vulnerable for HIV /AIDS, at risk of missing school, living in households with less food security and suffering from anxiety and depression (11).

The report by African orphan generation showed that the number of orphans in Sub-Saharan Africa will continue to rise in the years ahead, due to the high proportion of sub-Saharan African adults already living with HIV/AIDS and the continuing difficulties in expanding access to life-prolonging Antiretroviral treatment (12).

It was indicated that the situation of orphans and vulnerable children receives little attention in poverty reduction strategic papers and national strategic plans, despite the large magnitude of the problem in some countries (13).

A study conducted in Nigeria showed, there was an increase in the number of children losing their parent(s) due to infectious and non-infectious causes. It was also indicated that more parents were dying than before, which in turn increased the magnitude of orphan and vulnerable children (20).

2.2 The situation of orphans and vulnerable children in Ethiopia

Ethiopia counts one of the largest populations of orphans in the world. A Unicef report states that in Ethiopia there were 4.5 million orphans on a population of 90 million in 2014. The 4.5 million means that 5% of the total is an orphan, their parents are died of AIDS, untreated illness, hunger, drought and war (17).

According to the Unicef report, Ethiopia counts a steady increase in the number of street children orphaned by different reasons. In Addis Ababa more than more than 30 % of girls aged 10-14 were not living with their parents (18). It was also showed that the rights of most orphans in Ethiopia as well as in Amhara region were not protected due to various socio economic problems and cultural factors. Because of this, these orphans were found in a worse situation (16).

Despite this there are few orphanages in Ethiopia as compared to the number of orphaned and vulnerable children. It was also indicated that most of orphanages were initiated as a quick response to solve the problem of unaccompanied and orphaned minors. Because of this situation many problems were faced at home (16)**.** Another assessment made by the former Children and Youth Affairs Organization in Ethiopia showed the problems faced by the orphanages as in adequate funding to support programs designed for the children, shortage of trained personnel, Inadequate skills training that resulted in long care in orphanage, lack of psychosocial service, lack of long-term strategic planning are some of the problems faced in the orphanages .As it was also showed in a case study conducted in Bahirdar ,various governmental and some nongovernmental organizations are involved in the support of orphans. But this couldn't address the problem of orphans in a sustainable way as they lack a coordinated approach. There is duplication of effort and wastage of resources. Due to this a few benefited from various institutions and most orphans left without any form of support (14,15).

The finding of the study done in Jimma on the situation of orphans also revealed that non-governmental organizations operating in the areas had been supporting very few children with educational materials, health care cost and food. The supports being offered by the non-governmental organizations were insufficient, intermittent, duplicated and limited to few children in terms of their coverage. It was also indicated that orphan and vulnerable children were in difficult situations. The major problems of the OVC were malnutrition, poor hygiene, lack or shortage of proper clothing and essential social services (such as health, education, and shelter). Because of these problems, some of the OVC also become exposed to child labor exploitation, child sexual abuse, drug abuse and child trafficking (6).

2.3 Nutritional status of orphans Vs. non-orphans

A study done in the united republic of north western Tanzania on the impact of adult death on the health of children showed that the loss of either parent and the death of other adults in the household will increase stunting. This study also revealed that both maternal and paternal orphans were more likely to be short for their age than non-orphans. In non-poor families, the loss of a parent raises stunting to levels found among children in poor families with living parents. In poor families orphaning raises stunting levels even higher (30).

Nutritional statuses of the orphans were very poor in 6 to 12-year orphan children in Bangladesh orphanages. Children in orphanages had a significantly higher rate of stunting and underweight than non-orphanage children. The result reveled the prevalence of stunting 47.2 % and 24.5 % in orphanages and non-orphanage children respectively. This was an indication that chronic malnutrition is more prevalent among the children in orphanages (9,32)

Underweight prevalence of orphans in Kampala Uganda was 12 %, but there was no difference in the univariate analysis of anthropometric parameters between orphans and non-orphans (33).

Children in orphanages had a significantly higher rate of stunting, underweight as compared with non-orphanage children rate of stunting and underweight (9*).*

Non orphans had better food and nutritional intakes than orphans as it was showed in Nigeria. This study also showed non-orphans were more likely to eat at least 3 times daily, more likely to take proteins regularly, more likely to eat food to satisfaction and less likely to report insufficient food as a problem than the orphans (20).

Orphanages in Jimma community between the ages of 5 and 14 years showed that the orphanage children were more likely to be stunted but not more likely to be wasted than the family children (25). A study conducted in under five orphan children in Gondar also showed that the prevalence of wasting, underweight and stunting to be 9.9 %, 27.8 % and 45.7 % respectively (23).

A comparative cross-sectional study conducted in Raki district of Ghana showed, large proportion of the orphans (47 %) were malnourished when compared with only 28 % of malnourished non-orphans found in the normal homes (34). In HIV infected children living in an institution facility in India 79 % ,72 %,27% were underweight, stunted and wasted respectively. The nutritional status in Peri urban settlements also showed 59 %, 40 % and 25 % of the study participants were underweight, stunted and wasted respectively (38,39).

In contrary to this case control analysis done in all regions of Ethiopia in 2010 showed that orphan school children seemed to have a better anthropometric status than non-orphans although, the significant differences that were observed were relatively small. It was also showed that maternal and double orphans were less likely to be thin than paternal orphans (22).

2.4 Factors associated with the nutritional status of orphaned children

2.4.1 Socio demographic factors

Sex of the children

The prevalence of under nutrition in boys was higher than in girls in paternal and double orphans likewise, in a study conducted Lebanese orphanages wasting was high in boys than girls. But more girls than boys were stunted (10, 36).

Sex of the orphans didn't find any significant relation with the nutritional status of orphaned children in a case control study conducted in Ethiopia (22).

It was also showed that food intake of boys and girls did not show any significant difference in the study done in Nigeria (20).

Age of children

Age of the orphaned children was significantly associated with malnutrition in a study conducted in Mygoma orphanage center (25). As was showed in Lebanese orphanages, increased age of the orphaned children was associated with stunting (36).

Stunting and underweight was worse among younger (4-7) years boys and 8-11 year girls in orphanages (4).

Age of children were positively and significantly correlated to the proportion of stunted children, that is the likelihood of being underweight was significantly higher among children older (8-11 years) in orphanages (9).

With respect to age groups of the OVCs, the prevalence of stunting was found to be high among 10-12 years age group which was 25%, followed by 13-14 years age group which was 20.7 % and among those in between 7-9 years age group which was 19.3%. However, prevalence of wasting or thinness was 20.7 % for those between 7-9 years followed by 20.1 % for 13-14 years and 14.4% for 10-12 years age categories (10).

ounger age was found to be associated with underweight (39). In contrary with this there was no statistically significant differences between younger and older age groups in any of the anthropometric indices in Lebanon orphanages (36). It was also indicated that age did not found any more statistically significant interactions than would be expected by chance alone as it is reveled in the survey done in all regions of Ethiopia (22).

Duration of stay in the orphanage

Prevalence of malnutrition seemed to increase significantly in proportion with increase in length of stay in the orphanage, these differences were significant for stunting and underweight but not significant for wasting. Children who had been admitted to the orphanage for longer period were more likely to be stunted and underweight than those who had been recently admitted. This might be due to the nutritional care in these orphanages was less than optimal, resulting in long term chronic malnutrition (9).

A study done in Kenya showed duration of stay in the orphanage was positively and significantly correlated to the prevalence of underweight in orphanage children (9). Another study done in three foster care institutions in Serilanka showed children continued to be malnourished during institutionalization (35). A Study done in Tangail district of Bangladish found a significant relationship between occurred disease type and duration of staying in the orphanage, the rate of chronic under nutrition become more prevalent with increased duration of stay in the orphanage (4).

In contrary to this malnutrition among the orphans was higher during their first four years in the orphanage and with increasing duration in the orphanage malnutrition levels gradually declined as shown in children living in Dahika orphanage in Bangladesh, this might be due to involvement of special segment of the population who are in care and support (34). A study in North lebanon also showed lack of significant association between duration of stay in the orphanage and increased risk of stunting (36).

It was also indicated by Panapanich in Malawi, children who had spent more than one year in the orphanages were less malnourished than those who had been admitted for a shorter time (37).

2.4.2 Health related factors

Presence of illness

Orphaned Children in Kenyan orphanages were more likely to be stunted and underweight, this was associated with high levels of diarrhea and colds/cough (9).

History of illness in the last 2 weeks was also found to be associated with stunting and underweight in the study done in Kampala Uganda (33).

A study in Harer charity organizations also revealed that, stunting was usually associated with long term chronic malnutrition and long term factors such as frequent infection and poor feeding practices. About 20.3 % of the children are taking ART prophylaxis and thus they were HIV infected probably through mother to child HIV transmissions and the other orphans might be also being infected too. Due to HIV infection the host immunity may be impaired and leaving them vulnerable to frequent infection thereby causing nutritional inadequacies and it can also be viewed the other way too that malnutrition can also impairs their immunity and the vicious cycle will continue synergistically affecting growth and development of these children (10).

Cough two weeks before the survey time was significantly associated with wasting in a study done in Hawassa school age orphan children (40).

A study done in Gondar also showed diarrheal disease two week prior to the survey had significantly associated with wasting. Orphan and vulnerable children who were not ill in 2 weeks prior to the study were 40.2 % lower risk of underweight compared to those who had history of illness. Similarly, in Mygoma orphanage center diarrhea is associated with malnutrition (24, 25). In contrary to this, a study in kiambu municipality showed lack of relationship between having been ill one month prior to the interview and nutritional status of children (29). Similarly, a study

one in Kenya orphanages showed there was no significant relationship between wasting and diarrhea and cough/colds (9).

2.4.3 Hygiene related factors

Chronic malnutrition and personal hygiene situations were worse among children in orphanages in comparison with non-orphanage children. The proportion of underweight children was inversely and significantly correlated with children's bathing and washing hands with soap for both boys and girls as shown in the study done in Kenya (9).

Absence of taps positioned strategically, for example near the orphanages' dining area, which could serve as a reminder to the children in orphanages to wash their hands before meals coupled with rationing of water could have contributed poor personal hygiene among the children in orphanages (9). A case control analysis done in Ethiopian orphans had showed significantly lower odds than non-orphans of reporting to have washed their hands or face before coming to school (22).

2.4.4 Dietary factors

Orphan and vulnerable children who consumed higher varieties of food groups had lower risk wasting or thinness compared with those who consumed few varieties of foods (10). Similarly, a study done in Budgam orphanages showed that dietary intake was incomplete or deficient for all nutrients as compared to RDA for all age groups which may be related to poor planning of menus found in orphanages (27).

A 24-hour recall done in Jammu orphanages showed orphans were consuming less energy, proteins, fats, vitamins and minerals as per RDA for Indian Children and Adolescents. It was also indicated that dietary intake of children was deficient for all nutrients when compared to RDA for all age groups, this might be linked to the poor planning of menus and purchasing procedures found in orphanages (40).

A study done in an orphan child in Anatang of Jammu, Kashmir in Mashakor and Bangladish showed nutritional intake was deficient for all nutrients when compared to RDA This makes nutritional status poor in orphans. It was also indicated that orphan children are deprived of balanced diet (32, 39).

A situational analysis in eight states in Nigeria showed, non-orphans had better food and nutritional intake than orphans (20). The dietary assessment in Lebanon orphanages showed more than half of the studied sample was estimated to have inadequate daily intake of vegetables, fruits and proteins compared to the recommendation for their ages. Moreover, only 7.5 % of children (<10 years) and 9.6 % of adolescents (>10 years) had adequate dietary intakes as recommended for their age specific needs, with no statistically significant difference between the two age groups. This suggests the dietary quantity may be sufficient but the quality was not sufficient (36). But there was Inconsistent relationships between nutritional status and missing of meal (26).

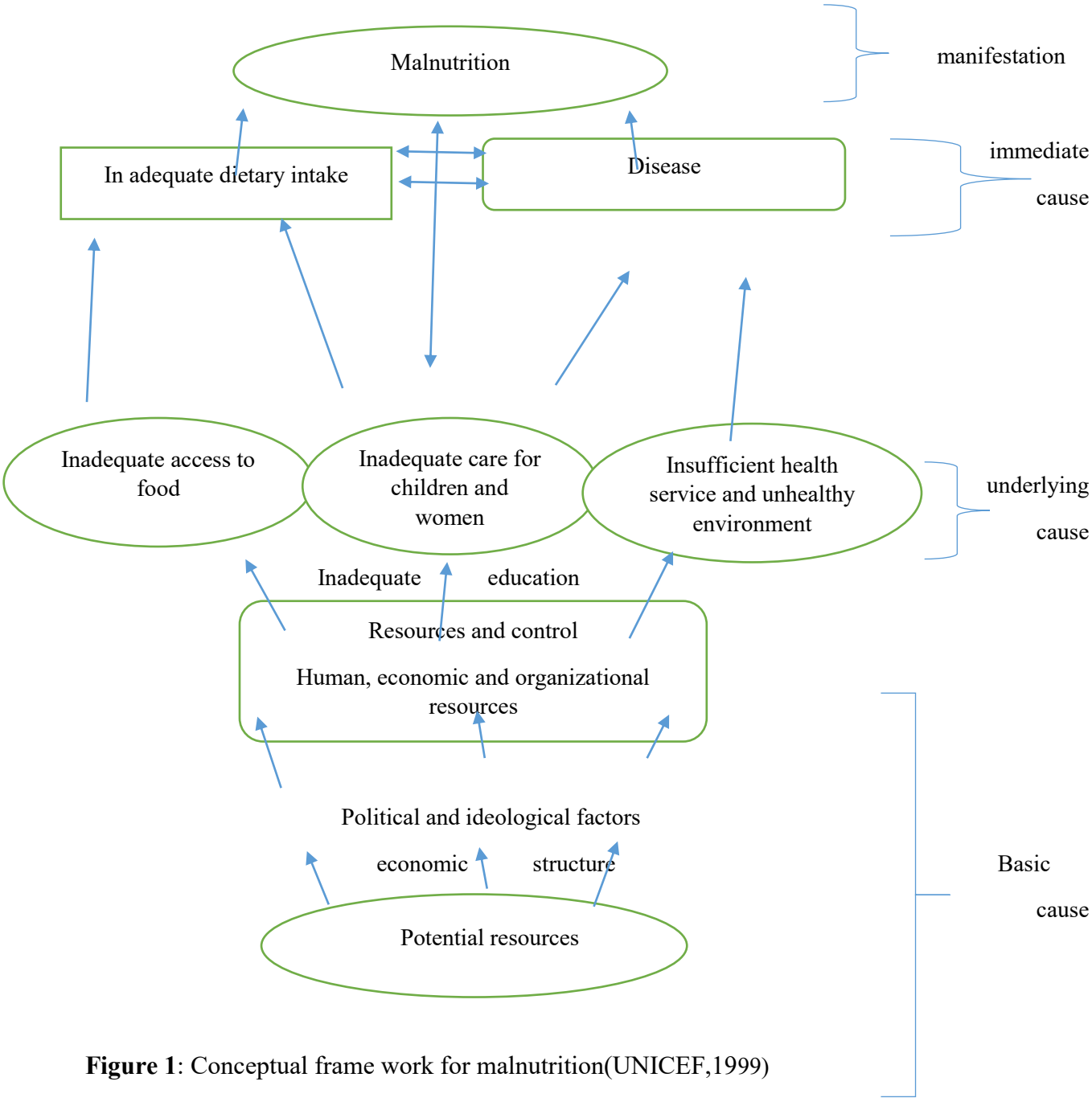

Figure 1: Conceptual frame work for malnutrition(UNICEF,1999)

3 Objective

3.1 General Objective

To assess the nutritional status among institutionalized school age OVC in selected orphanages in Addis Ababa.

3.2 Specific objectives

- To assess the proportion of stunting, underweight and low BMI for age among institutionalized school age OVC
- To assess whether duration of institutionalization in the orphanage had an effect on the nutritional status of institutionalized school age OVC
- To assess whether presence of illness in the last two weeks had an effect on the nutritional status of institutionalized school age OVC

4 Method

4.1 Study area

The study was conducted in selected orphanages in Addis Ababa, which is the capital city of Ethiopia. There are 28 private and 3 governmental orphanages in Addis Ababa which are given license by the Addis Ababa women's and children affairs office. These orphanages are devoted for the care and raring children who lost their parents and some of these orphanages give health care services for the peoples outside the orphanage and give support for the vulnerable and fostered children (Addis Ababa children's and women's affairs office). This study was conducted in four orphanages. These were save our souls (SOS) children village, kidane mihert orphanage, kechene orphanage and missionary of charity. There were 765 orphan and vulnerable children reared in those orphanages.

4.2 Study design and period

An institution based cross-sectional study design was conducted from May to June 2018

4.3 Population

4.3.1 Source Population

The source population for this study was all institutionalized OVC aged 7-14 year residing in all Addis Ababa orphanages.

4.3.2 Study Population

The study participants were those Institutionalized OVC aged 7-14 year in selected orphanages.

4.4 Inclusions and exclusion criteria

Inclusions Criteria

- OVC who were full time residents at the orphanage

Exclusion criteria

- OVC with obvious physical deformity (who are not able to stand on the measuring scale)

4.5 Sample Size and Sampling Technique

4.5.1 Sample Size Determination

Single population proportion formula for sample size calculation was used to recruit the eligible participants. By assuming 5% margin of error and 95% confidence interval (Z alpha=0.05). The prevalence of stunting, underweight and low BMI for age (46.5%, 20.8% and 10.5%, respectively) among institutionalized OVC was taken from similar study conducted in Kenyan orphanages (9). Finally, by considering a non-response rate of 10% the highest calculated sample size from the three indicators was taken as the final sample size

Sample size calculation by using the prevalence of stunting in institutionalized OVC

Where

Z = level of confidence (1.96)2
P = single population proportion (46.5%)
d = margin of error (5%)
n = sample size

n = Z2 p (1-p)/d2 = (1.96)2(0.465(1.0.465)/ (0.05)2 =380

n=380 by adding 10 % non-response rate, the sample size was 418

Sample size calculation by using the prevalence of underweight in institutionalized OVC

Where

Z = level of confidence (1.96)2
P = single population proportion (20.8%)
d = margin of error (5%)
n = sample size

n = Z2 p (1-p)/d2 = (1.96)2(0.208(1-0.208)/ (0.05)2 =252

n=252 by adding 10% non-response the sample size was 277

Sample size calculation by using the prevalence of low BMI for age in institutionalized OVC

Where

Z = level of confidence (1.96)2

P = single population proportion (10.5%)

d = margin of error (5%)

n = sample size

n = Z2 p (1-p)/d2 = (1.96)2(0.105(1-0.105)/ (0.05)2 =144

n=144 by adding 10% non-response rate, the final sample size was 158

By taking the largest sample size the final sample size was **418**

Table 1 sample size calculation by using the prevalence of stunting, low BMI for age and underweight

Index	**Prevalence in orphanage children (p)**	**CI**	**Margin of error(d)**	**Non response rate**	**Sample size (n)**
Stunting	**46.5%**	**95%**	**5%**	**10%**	**418**
Low BMI for age Z score	**10.5%**	**95%**	**5%**	**10%**	**158**
Underweight	**20.8%**	**95%**	**5%**	**10%**	**277**

4.5.2 Sampling technique

Simple random sampling technique was used to recruit the study participants from the selected orphanages. The orphanages were first stratified by ownership as governmental and non-governmental. Three orphanages from non-governmental and one orphanage from governmental were selected based on their voluntariness and the number of children residing in each orphanage. The number of sample size required for each orphanage was allocated proportional to the number of orphans in each orphanage. Finally, eligible participants were selected from each stratum randomly from the list of the OVC

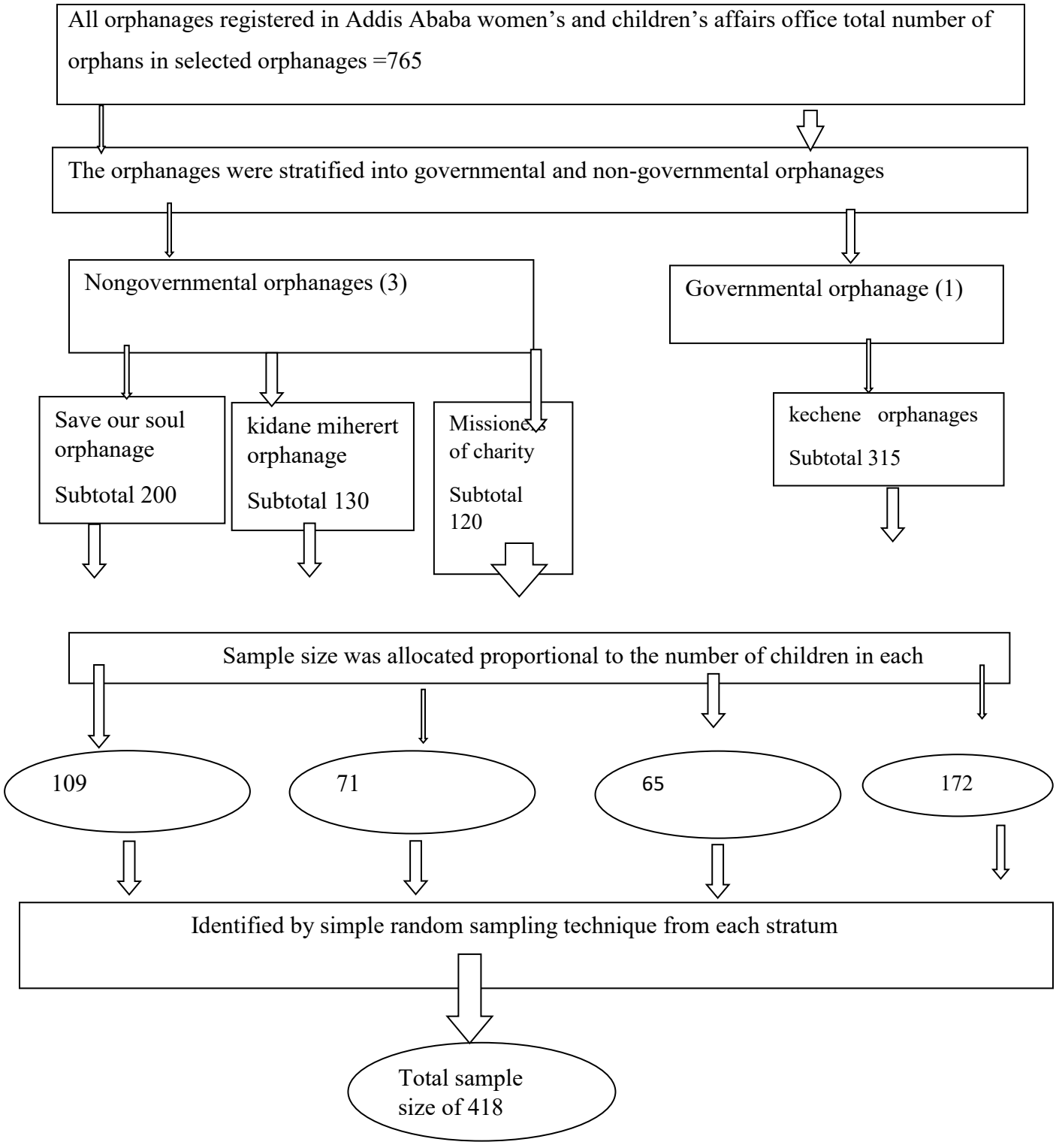

Figure 2: Schematic diagrammatic presentation of the sampling procedure to assess the nutritional status of school age institutionalized orphan and vulnerable children in Addis Ababa, Ethiopia

4.6 Measurement of variables

Duration of institutionalization in the orphanage: children were asked to report if they joined other institutions before coming to the current institution. If their answer is 'yes 'they were asked to report how many years they stayed in the former orphanage as well as in the current orphanage. Children's duration of institutionalization was classified as 0-5 years, for those who stayed in either or both orphanages for less than five years, 6-10 years and 11-14 years based on classifications schemes used by other researchers.

Measurement of nutritional status among school age children: Anthropometric assessment was used to assess the nutritional status by using height and weight measurements. Height measurement was taken after asking the child to stand without footwear with the feet parallel and with heels, buttocks, shoulders and occipital touching the measuring board and hands hanging by the sides, and was recorded in centimeter to the nearest 0.1 cm after repeating the measuring procedure. Weight measurement was taken after the child was requested to be without shoes and in light clothes. These measurements were compared and classified into categories of nutritional status using WHO standard growth curves for school age children and adolescents (WHO 2007). Each of the three nutritional status indicators, Height for age, weight for age and BMI for Age were expressed in standard deviation units (Z scores) from the median of the reference population. The use of this reference population was based on the finding that well-nourished young children in all population groups follow very similar growth patterns. The reference populations were useful for comparison facilitating the examination of differences in the anthropometric status of subgroups in a population and changes in nutritional status over time.

Illness in the last two weeks' measurement: Illness in the last two weeks was assessed by asking children weather they had symptoms of cough/common cold, diarrhea, fever and vomiting. If the child had one of this symptoms he/she was considered as ill in the last two weeks before the time of interview

Hygiene: Personal hygiene of the children was assessed by asking hand washing practice at critical times, before eating food and after visiting toilet the day before the survey time. If the children wash their hands all the time before eating food and after visiting toilet it was reported as 'yes', if they didn't wash their hands all the time it was reported as 'no'. in addition to this if the answer to the question for hand washing was 'Yes' they were asked what they used to wash their hands weather it was with only water or with soap.

Feeding practice during illness: OVC were asked to report question on their feeding pattern during illness weather they take the' same amount of meal/drink, 'about the same', 'much less than usual', 'more than usual' and 'stopped feeding'.

Variables of the study

Dependent variables

The dependent variables of the study were stunting, underweight and low BMI for age

Independent variables

The independent variables of the study were sex, age, educational status, orphan status, duration of stay in the orphanage, presence of illness in the last two weeks, chronic illness, drug taken for chronic illness, treatment sought for acute illness, feeding practice during illness, hand washing, number of meals per day, missing of a meal, attending class with empty stomach, meals satisfying appetite, snacks provided and number of snacks provided.

Operational and standard definitions

Double orphans: Children who have lost both parents

Single orphans: Children who have lost one of their parents

Vulnerable children: children who are more exposed to multiple risks than their peers due to their inability to access education, health care and protection.

Institutionalized orphan children: children who reside in the institution to get care in a group living arrangements

Stunting: Height for Age Z scores below minus 2 standard deviations (<-2SD) from the median of the WHO reference 2007 (61 month-19 years).

Low BMI for age: - BMI for age Z scores below minus 2 standard deviations (<-2 SD) from the median of the WHO reference 2007 (61 month-19 years).

Underweight: -Weight for age Z scores below minus 2 standard deviations (< -2 SD) from the median of the WHO reference 2007 (61 month-19 years).

Chronic illness: A disease that persists for long time and can't be prevented by vaccines or cured by medication.

Missing of one of the meal: It is missing of one of the regular meals, breakfast, lunch and dinner one day before the data collection time.

Meal satisfying appetite: Subjective assessment of the children satisfaction with the diet by asking questions whether they are satisfied with the diet or need more extra meals to satisfy their appetite.

Attend class with empty stomach: Those children who attend class without eating their breakfast one day before the data collection time.

4.7 Data collection tools and procedures

4.7.1 Data collection tools

Interviewer administered structured questioners and anthropometric measurements were used as an instrument to collect data. Questions on the socio demographic characteristics of the OVC was collected from the orphan child, documents (recordings). In addition to this the orphanage directors and care takers in the orphanage answer questions regarding the orphanage accordingly

4.7.2 Data collection procedures

Three data collectors who have a minimum of diploma in health were recruited and one supervisor who have BSC degree in public health was selected from the health facility. Data collectors and supervisors were trained for two days by the principal investigator on how to collect socio demographic data, inclusion and exclusion criteria's, data collection instruments and was provided with the basic skills on how to take weight and height measurements of the study participants to increase measurement accuracy. The supervisor was also trained on how to check whether the questioners are filled correctly during the data collection period.

4.8 Data quality Assurance

A questionnaire was prepared in English and then translated to Amharic and back to English. Data collectors were trained on the data collection, sampling procedure, inclusion and exclusion criteria, and on the standard operating procedures to measure anthropometric measurements. In addition to this, those children who were in the lower age group (7-9) were assisted by the care takers to answer some of the questions in the orphanage to increase data quality. Standardization of anthropometric measurements was conducted in a group of 10 children whose ages fall within the pre-established range for this study by giving a sequential identification number for both children and data collectors before the actual measurements are taken .One assistant and one measurer was paired with the child before carrying out the standardization exercise, the supervisor weights and measures (standard measure) each child and record the results without the trainees seeing the results .Then the measurement of each child was started by each measurer (my measure) upon completion of this the supervisor was taking advantage of the standardization exercises to systematically observe each measurers performance using measurement techniques observation form .After all the measurements are completed each of the measurers will calculate the difference between my measure and the standard measure for each measurement then in all cases in which large or medium difference are found ,the respective measurer with the assistance of the supervisor carefully repeat the measurement in order to identify and correct the cause of the difference .Pre testing of questioners on 5 % study participants before the actual data collection was done on participants other than the selected orphanages .The collection of data was checked by the principal investigator on daily basis for any incompleteness / or inconsistency and errors .Errors were returned back to data collectors for correction.

4.9 Data analysis

The socio demographic, hygiene, health related and dietary variables were entered into Epi data version 3.1 and exported to SPSS version 22 for further analysis. The data was sorted, summarized, cleaned and checked for missed value using frequencies and cross tabulations.

Height for age (HAZ), weight for age (WAZ) and Body mass index for age (BAZ) scores were generated using WHO reference 2007 growth standards by using Anthro plus software and exported to SPSS for further analysis. Children who fall below minus two standard deviations (−2 SD) from the median of the reference population were regarded as moderately malnourished, while

those who fall below minus three standard deviations (−3 SD) from the median of the reference population were considered severely malnourished. Height for age (HAZ), weight for age (WAZ) and BMI for age Z scores (BAZ) were exported to SPSS after setting a cut off criteria based on WHO growth standards and transformed to dichotomous variables to run binary and multivariate logistic regression.

Descriptive statistics were carried out to characterize the study population using different variables.

Multivariate logistic regression analysis was used to test the effect of duration of institutionalization in the orphanage and presence of illness in the last two weeks on the nutritional status of OVC, after entering all clinically important variables in the multivariate logistic regression model. Statistically significant association was set at $p < 0.05$ in multivariate analysis.

4.10 Ethical Consideration

Ethical clearance was obtained from the Ethical Review Board of Addis Ababa University. A formal letter was obtained from Addis Ababa University School of Public Health and submitted to the management of the orphanages. The directors of the orphanages were consulted before the data collection. Information regarding the study was explained to the participant, including the procedures, potential risks and benefits of the study. The respondents were informed that they can refuse not to participate in the study. Confidentiality was assured by assuring, the information would not be used for other purpose, as the information being collected is part of the research for partial fulfillment of the requirement master degree in public health in Addis Ababa university Written informed consents was sought from the orphanage directors and then Assent was sought from the children and the care takers after being informed about the study.

4.11 Dissemination of the results

The findings of the study were submitted to Addis Ababa university school of public health, and Administrations of the orphanages. The results will be communicated through publication on local or international journals.

5 Result

5.1 Socio-demographic characteristics

A total of 391 OVC were interviewed with a response rate of 93.5%. Among the OVC females were 203(51.9). The mean age of the participants was 11.3 (SD ± 2.17) years. Among the OVC 39.6 % were in the age group 10-12 followed by 13-14 (37.1%) and 7-9 (23.3) respectively. Two hundred forty-three (62.1%) of the respondents were double orphans, 270(61.9%) were maternal orphans and 260 (66.5%) were paternal orphans (Table 2).

Table 2: Socio- demographic characteristics of school age OVCs in Addis Ababa selected orphanages, Addis Ababa, Ethiopia

Variables	Frequency (n)	Percent(%)
Sex of the child		
Male	188	48.1
Female	203	51.9
Total	391	100
Age group of the child		
7-9	91	23.3
10-12	155	39.6
13-14	145	37.1
Total	391	100
Child by orphan status		
Orphan	310	79.3
Non Orphan(vulnerable)	81	20.7
Total	391	100

School level of the child		
Don’t start school	8	2
Kindergarten	48	12.3
Primary	335	85.7
Total	391	100
Duration of stay in the orphanage		
0-5	154	39.4
6-10	212	54.2
11-14	25	6.4

5.2 Hygiene and health status

About 148 (37.9 %) of the school age (OVC) wash their hands after visiting toilet and 12.3 % of this reported washing hands with soap.

About 22.3 % of the school age OVCs were sick two weeks before the data collection time. The major symptom was cough/common cold (10 %). From those who had illness in the last two weeks 47.1 % of them were seeking treatment in health facility.

Among the OVC, 51 (13.0 %) of them were taking medication for chronic illness. Anti-retro viral medications were taken by 11 % of the OVC.

Table 3: Hygiene and health related factors of the institutionalized school age OVC in Addis Ababa orphanages.

Variables	Frequency(n)	percent (%)
Hand washing before meal		

Yes	369	94.4
No	22	5.7
Total	391	100
Hand washing after visiting toilet		
Yes	148	37.8
No	243	62.2
Total	391	100
Any sick ness in the last two week		
Yes	87	22.3
No	304	77.7
Total	391	100
Type of sickness or symptoms the child suffered		
Cough/common cold	39	10
Fever	21	5.4
Diarrhea	32	8.2
Vomiting	13	3.3
Other	13	3.3
Medication taken for chronic illness		
Yes	51	13
No	340	87
	391	

Total		100
Type of medication taken by the child		
ART Medications	43	11.0
Others	8	2.1

5.3 Dietary assessment of school age OVC

About 57.5 % of OVC eat more than 3 meals regularly over 24 hours and 47.6 % of this reported that they were not satisfied with the diet. It was also reported by the OVC that 5.4 % of the study participants miss one of their meals in 24 hours (Table 4).

Table 4: Dietary Assessment of school age OVC in Addis Ababa orphanages, Addis Ababa, Ethiopia

Variables	Frequency(n)	percent (%)
Number of meals eaten regularly		
Three	166	42.5%
More than three	225	57.5
Total	391	100
Meals satisfying appetite		
Yes	205	52.4
No	186	47.6
total	391	100
Snacks consumed		
Yes	225	57.5
No	166	42.5
Total	391	100
Number of snacks consumed regularly		
One	205	52.4
Two	20	5.1
Three		
Total	225	57.5
Attending class with empty stomach		

Yes	21	5.4
No	370	94.6
Total	391	100
Missing of one of the meals in the last 24 hour		
Yes	57	14.6
No	334	85.4
Total	391	100

5.4 Measures of Nutritional status of OVC

Height for age

As figure 3, illustrates 21.5 % of children in the age group of 7-14 were stunted of this 3.8 % of the OVCs were severely stunted.

Low BMI for age

The proportion of low BMI for age in this study was 12 %, of these 1% were severely wasted.

Weight for age

underweight prevalence in this study was 12.8 % in 7-10 years old OVC. Of this 0.3 % were severely underweight.

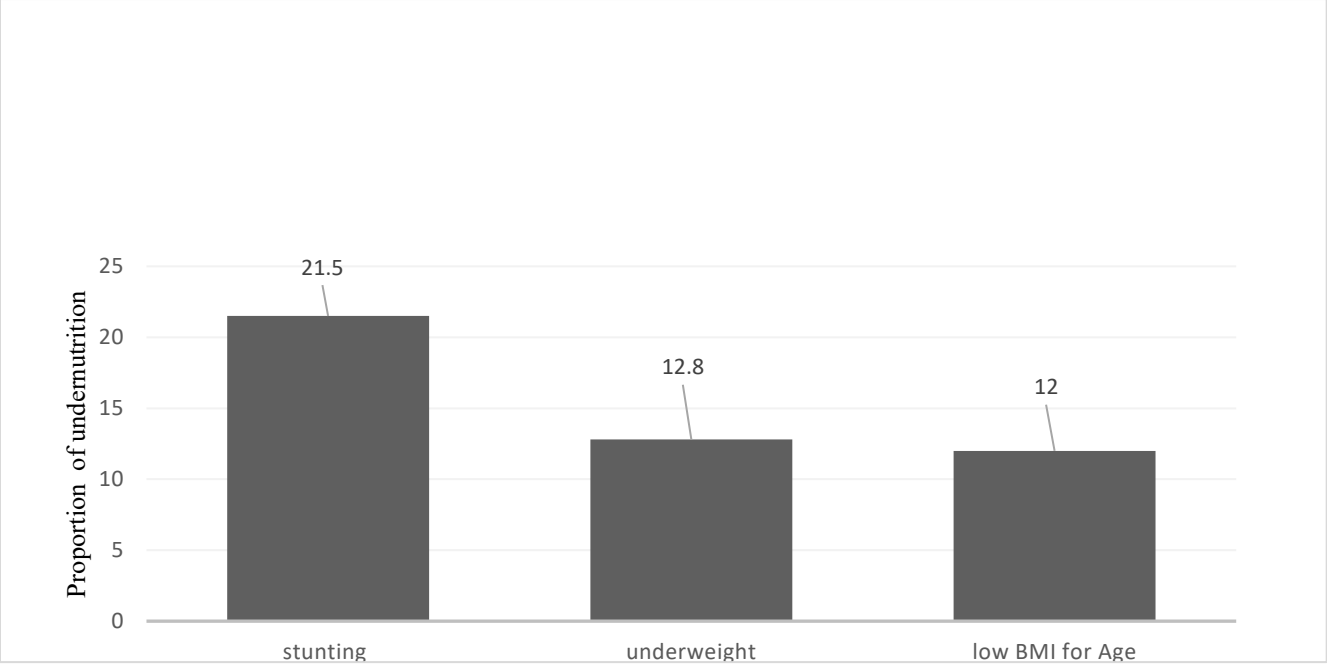

Figure 3: Magnitude of malnutrition of school age institutionalized orphaned children in Addis Ababa, Ethiopia

As figure 4 illustrates, the proportion of stunting in the age group of 10-12 was 25.8% ,24.1 % in the age group of 13-14 years and 9.9 % in the age group of 7-9 years.

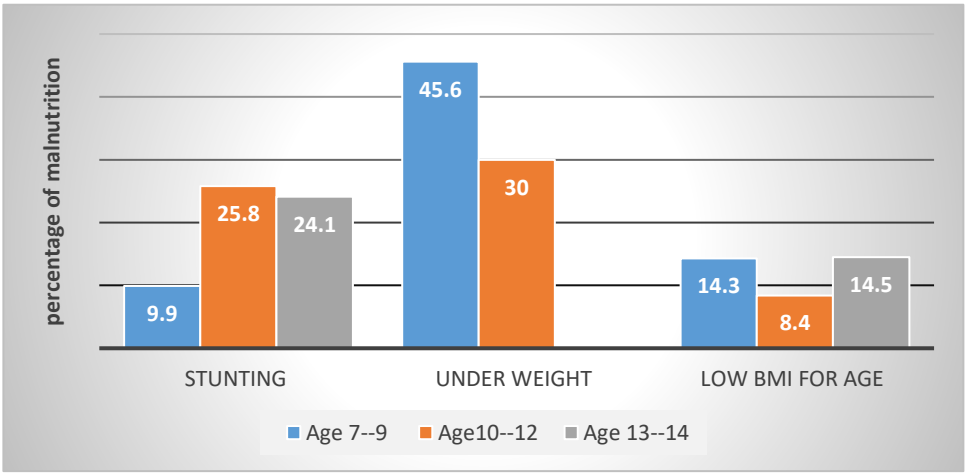

Figure 4: Magnitude of malnutrition of school age institutionalized orphaned children by Age in Addis Ababa orphanages, Addis Ababa, Ethiopia

5.5 Effect Duration of institutionalization on stunting in school age OVC

The multivariate logistic regression analysis identified duration of institutionalization in the orphanage as determinant factors for low height for age (stunting).

As table 6 describes, duration of institutionalization in the orphanage was significantly associated (p=0.001) with stunting. The odds of stunting in those OVCs who stayed in the orphanage for more than 10 years was 5.81 times more likely than those who stayed in the orphanage for less than 5 years (AOR=5.81:95% CI;(2.27-14.8).

Table 5: Results of multivariate logistic regression analysis for Height for Age (stunting) of School Age OVCs in Addis Ababa, orphanages, Addis Ababa, Ethiopia

Variable	Nutritional status		COR;95% (CI)	AOR ;95% (CI)
	Stunted	Normal		
Age				
7-9	9	82	1	1
10-12	40	115	3.16(1.45-6.89)*	2.65(1.18-5.91)**
13-14	35	110	2.89(1.32-6.36)	2.36(1.05-5.31)
Sex				
Male	46	142	1.40(0.86-2.28)*	1.54(0.91-2.62)
Female	38	165	1	1
Parents alive				
Yes	34	114	1	1
No	50	193	0.86(0.53-1.42)	1.40(0.48-4.03)
Mother alive				
Yes	26	95	1	1
No	58	112	1.00(0.59-1.68)	1.23(0.57-2.65)
Father alive				
Yes	34	97	1	1
No	50	210	0.67(0.41-1.11)*	0.44(0.16-1.18)

Duration of institutionalization in years				
0-5	31	123	1	1
6-10	38	174	0.86(0.51-1.46)	0.97(0.55-1.73)
11-14	15	10	5.95(2.44-14.5) *	5.81(2.27-14.8) **
Illness in the last two weeks				
Yes	22	65	1.32(0.75-2.30)	1.63(0.89-2.96)
No	62	242	1	1
Presence of chronic illness				
Yes	12	39	1.14(0.57-2.30)	1.07 (0.49-2.35)
No	72	268	1	1
Regular meal intake				
Three times per day	36	130	1.02(0.62-1.66)	1.10(0.61-1.98)
More than three times per day	48	177	1	1

*** P-value < 0.25 in Bivariate analysis, ** P-value < 0.05 in Multivariate analysis**

5.6 Effect of presence of illness in the last two weeks and low BMI for age

The multivariate logistic regression analysis identified infection in the last two weeks as a determinant predictor for low BMI for age.

Illness in the last two weeks was significantly associated (p=0.001)) with low BMI for age. The odds of low BMI for age in those OVCs who were ill in the last two weeks were 5.01 times more

likely than those who were not ill in the last two weeks (AOR = 5.01; 95% CI;(2.53-9.89) (Table 6).

Table 6: Results of multivariate logistic regression analysis for low BMI for age Z score of School Age OVCs in Addis Ababa, Ethiopia.

Variables	Nutritional status		COR;95% (CI)	AOR;95% (CI)
	Low BMI for age	Normal		
Sex				
Male	24	164	1.14(0.62-2.10)	0.95(0.48-1.87)
Female	23	180	1	1
Age of the child				
7-9	13	78	1	1
10-12	13	142	0.54(0.24-1.24)	0.59(0.24-1.41)
13-14	21	124	1.01(0.48-2.14)*	1.10(0.49-2.47)
Parents alive				
Yes	12	136	1	1
No	35	208	1.907(0.95-3.80) *	2.19(0.58-8.25)
Mother alive				
Yes	11	110	1	1
No	36	234	1.53(0.75-3.13) *	0.73(0.22-2.37)
Father alive				

Yes	10	121	1	1
No	37	223	2.00(0.965-4.178)*	1.17(0.38-3.57)
Duration of institutionalization in years				
0-5	18	136	1	1
6-10	28	184	1.15(0.61-2.16)	0.90(0.43-1.87)
11-14	1	24	0.31(0.04-2.47)	0.27(0.03-2.35)
Illness in the last two weeks				
Yes	23	64	4.19(2.22-7.89) *	5.01(2.53-9.89) **
No	24	280	1	1
Presence of chronic illness				
Yes	11	40	2.32(1.09-4.92) *	2.11(0.89-5.02)
No	36	304	1	1
Number of meals eaten regularly				
Three	13	153	0.47(0.24-0.93) *	0.53(0.24-1.20)
More than three	34	191	1	1

- **P< 0.25 in Bivariate analysis, ** P-value < 0.05 in Multivariate analysis**

6 Discussion

The aim of this cross sectional study was to assess the nutritional status of school age institutionalized OVC in Addis Ababa orphanages. The nutritional status of children was assessed by using anthropometric measurements. The overall prevalence of stunting, low BMI for age and underweight in this study was 21.5%, 12% and 12.8% respectively. Duration of institutionalization in the orphanage and presence of illness in the last two weeks were the two main significant predictors of the nutritional status of school age institutionalized orphaned and vulnerable children.

The prevalence of stunting, low BMI for age and underweight reported in this study was higher than Bangladesh and Ghana orphanages which reported 14.3 %, 6.3 % and 12 % in Bangladesh and 10 %, 5.7 % and 11.2 % in Ghana orphanages respectively (29,32). On the other hand, study conducted in Serilanka orphanages reported stunting, low BMI for age and underweight prevalence of 51.9 %, 63.1 % and 25 % respectively which was higher than the present study (35). Likewise, a study done in Indian orphanages reported low BMI for age and underweight prevalence of 63.1 % and 79 % respectively (39). This discrepancy might be due to the use of different cut off criteria and marked consideration of the nutritional status (growth and development), life style of institutionalized orphaned children, lack of sufficient number of orphanages and the dietary patterns in the orphanage (27,32).

Underweight is reported increase the risk of death as well as result in greater risk of infection and a slow recovery from illness (41).

Stunting has been determined as accumulative effect of conditions in the first 1000 days of life, linear growth failure begins in the anti-natal period and continues over the first two years of life with minimal recovery thereafter, and the degree of stunting tend to increase throughout school age years (33)

The odds of stunting among OVC who spend more than 10 years in the institution were higher than those OVC who spend less than five years in the institution. This finding concurs with study finding from Serilnka orphanage children, which showed children continued to be malnourished during institutionalization, Kenyan orphanages which revealed duration of stay in the orphanage is positively and significantly correlated to the prevalence of underweight in children in orphanages and in Tangail district of Bangladish which reported the rate of chronic under nutrition

become more prevalent with increased duration of stay in the orphanage (4,9,35). Nevertheless, the finding was different when compared to North Lebanon orphanages which showed lack of significant association between duration of stay in the orphanage and increased risk of stunting, in Malawi orphanages which reveled children who spend more than one year in the orphanages were less malnourished than those who had been admitted for a shorter time. It is also indicated in Dahika orphanage in Bangladesh malnutrition among the orphans was higher during their first four years in the orphanage and with increasing duration in the orphanage malnutrition levels gradually declined. (32,36,37). This discrepancy could arise from poor planning of menus in the orphanage, low quality residential setup, in accurate care giving in the orphanage which makes the nutritional care in the orphanage less optimal, resulting in long term chronic malnutrition during institutionalization (9,27,39).

Presence of illness in the last two weeks increased the odds wasting among the orphanage children. This finding was similar with Mygoma orphanage center which showed diarrhea associated with malnutrition and in Tangli district of Bangladish which showed a significant relationship between occurred disease type and malnutrition (4,25).

In contrary to this, a study by Panpanich in Malawi orphanages failed to find any significant differences in the nutritional status and morbidity of orphans and also study done in Dagorti division of kenya which showed no significant relationship between wasting with diarrhea and cough/colds (9). The reason for the discrepancy might be due to the severity and duration of the illness was not assessed (26).

Several studies had shown that child illness has a negative effect on child growth. Child illness affects dietary intake, absorption and utilization of nutrients, and hence affects child nutritional status. Diarrhea and vomiting lead to decreased nutrient absorption, further weakening the immune system and increasing susceptibility to disease. This vicious cycle is often repeated, eventually resulting in severe malnutrition or even death.

In general, long duration of stay in the orphanage and presence of illness in the last two weeks associate with under nutrition. So the situation of orphan and vulnerable children in the orphanages should be assessed to decrease the proportion of under nutrition in orphanages.

. Strength and limitation of the study

Strength of the study

- Use of a calibrated measurement instrument to decrease measurement errors.

Limitation of the study

Predictors which are known to affect the nutritional status of OVC such as dietary intake, physical activity and knowledge of the care takers were not assessed, so important predictors of the nutritional status of OVC were missed in this study. The use of anthropometry to assess the nutritional status of OVC couldn't identify stunting (under nutrition) from other specific nutrient deficiencies, such as zinc deficiency, which is known to cause stunted growth. So this study lacks identifying the cause of malnutrition weather it was because of micronutrient deficiencies or protein (energy) deficiency. The study was not out of the limitations of cross sectional study in identifying temporal relationship. In addition, this study was not also triangulated with qualitative study.

8 Conclusion and Recommendations

8.1 Conclusion

From the study under nutrition was found to be a public health problem among school age OVCs

Those who stayed in the orphanage for longer duration had higher rate of stunting than those who were recently admitted.

Illness in the last one weeks before the survey time were significantly associated with low BMI for age.

The causes of malnutrition among school age OVCs were diverse, multidimensional and interrelated

8.2 Recommendations

Orphanage administration

Since this study founds moderate to high prevalence of under nutrition, the orphanage administrator should work to decrease the proportion of underweight and to improve the nutritional status of institutionalized OVC by improving the nutritional and health care services given to those children in the orphanage during institutionalization.

To researchers

Since this study assessed the nutritional status of OVC by anthropometry, further dietary assessment studies need to be conducted to assess the adequacy of macro and micro nutrients intakes in the orphanages and further qualitative studies should be conducted to triangulate the findings

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10 Appendix

English version of Patient information sheet

Participant information sheet and informed voluntary consent for the Directors of the selected orphanages

Good morning (good afternoon/

Hello my name…..……am working with Hanna Aderaw. She is a post graduate student at Addis Ababa University Department of Public Health and working a paper to assess **the nutritional status of institutionalized School age orphaned and vulnerable children in selected orphanages in Addis Ababa.** Your orphanage has been selected randomly to participate in this study. Since Yours and the child in the orphanage participation is based on your willingness you need to be aware of every detail information regarding the study to declare your agreement concerning the study.

Title of the Study: To assess nutritional status and associated factors among institutionalized school age orphaned children in Addis Ababa, Ethiopia from Mayto June 2018

Purposes of the Study: The study will be done for the partial fulfillment of Master's Degree in Public Health. The research will also be helpful to collect some scientific information about the nutritional status of institutionalized orphan children.

Procedure: The study will be carried out simply by asking the orphaned child, you and care takers with structured questions.

So you are kindly requested to fill the questionnaire on time. However, if the orphaned child does not want to participate in the study we will put the format upside down on the table and he/she can leave out. Finally, measurement of the child height and weight with minimum clothing and no foot wear will be taken. All this will not take more than 30 minutes

Confidentiality: All information given by you and the child will be kept confidential and will not be accessible to any third party, the child and your name will not be registered on the question sheet so that you will not be identified.

Risks, Benefits and Harms: With the child participation in the study, no payment will be given or has no any special privilege for the child, but your willingness to let the child and yourself to participate in the study and giving the relevant information will provide great input to bring change in Nutritional Status of institutionalized orphan and vulnerable children. The procedure does not bear any physical or psychological trauma on the child. Because of his/her refusal will not cause any problem on her/his grades and there will not be any significant harm and risks rather than slight discomfort due to sharing study time of the child / if you may be busy to respond the questions.

Rights: Childs participation in the study will totally be based on your agreement and the child has the right not to participate from the beginning, or may stop participating at any time after starting participation. The Childs refusal have no effect on the orphanage

Contact address for any compliant: If there are any questions or queries any time about the study or the procedure, please contact, Hanna Aderaw (the Principal Investigator), Tel. 0913-94-69-69, as well contact to Addis Ababa University College of Health Sciences Institutional Research Ethics Review Committee's Chairperson at office phone …….or P.O.Box……, Addis Ababa, Ethiopia.

Declaration of Informed Consent by the orphanage Administrators

I have read the participant's information sheet. I have clearly understood the purpose of the research, the procedures, the risks and benefits, issues of confidentiality, the rights of participating and the contact address for any queries. I and the child in this orphanage have given the opportunity to ask questions for things that may have been unclear. Me and the child in the orphanage

have the right to withdraw from the study at any time or not to answer any question that we do not want. Therefore, I declare my voluntary consent to participate in this study with my initials.

Name and signature of the orphanage Director ---------- Date----------

Name and Signature of the principal investigator ---------- Date----------

An English Questioner Designed to assess the Nutritional Status and Associated factors among institutionalized school age Institutionalized OVC in selected orphanages in Addis Ababa

This was a thesis is conducted by Addis Ababa university Department of Public Health for the partial fulfilment of master degree in public health .The aim of the study was to assess the nutritional status of institutionalized orphan children in selected orphanages in Addis Ababa .The following Questionnaire classified in to five parts as socio-demographic factors, Hygiene and health related factors, Dietary factors ,Care and support and services given in the orphanage and Anthropometric measurements .

IDENTIFICATION	
NAME OF THE ORPHANGE_____ NAME OF THE INTERVIWER_____ SIGNITURE _____ DATE OF INTERVIEW: ____/_____/ DAY /MONTH / YEAR RESULT OF INTERVIEW 1- COMPLETED 2- PARTIALLY COMPLETED 3- REFUSED 4- RESPONDENT NOT AVAIALBLE 5-OTHER _____ SPECIFY *CHEKED BY SUPERVISOR;* NAME_____SIGNATURE_____DATE_____	

Part I: **Questions on Socio demographic characteristics (respondent child assisted by take taker)**

No	Questions	coding categories	skip to
Q.101	Sex of the child	Male…….1 Female…….2	
Q.102	Age of the child	…… (completed years)	
Q.103	What is the highest level of school has (name) attend?	_____	
Q.104	What is the highest grade /number of years (name) has completed?	_____	
Q.105	"Are the natural parents of the child alive?"	Yes……1 No…….....2	If No ,skip to Q.108

Q.106	"Is (NAME)'s natural mother alive?"	Yes…….1 No……...2	
Q.107	"Is (NAME)'s natural father alive?"	Yes…….1 No…….....2	
Q.108	Is (NAME) transferred from other orphanage?	Yes…….1 No……2	If NO, skip to Q.110
Q.109	How many years /months/days you stayed in that orphanage?	_____	
Q.110	Childs Total years of staying in the orphanage?	_____ (completed years)	

Part II: Hygiene and health related question (respondent children)

Q.201	Has (name) had washed hands yesterday before eating food?	Yes…….....1 No……2	If no skip to 203
Q.202	What did has name used to wash	Only water…….1 Water with soap…….2	

	his/her hands before eating food		
Q.203	Has (name) had washed hands yesterday after visiting toilet?	Yes……...1 No…….....2	If no skip to 205
Q 204	What did has name used to wash his/her hands after visiting toilet?	Only water…….1 Water with soap……2	
Q.205	Has name has any illness in the last two week?	Yes…….1 No……..2	If no skip to 218
Q.206	Has (name) had fever at any time in the last two week?	Yes……...1 No……2	
Q.207	Has (name) had an illness with Cough at any time in the last 2 weeks?	Yes…….1 NO…….....2	If No ,skip to Q.211
Q.208	When you had an illness with the cough did you breathe faster than usual with short rapid breathing or	Yes…….1 No ……...2	If no skip to 210

	have a difficulty of breath?		
Q.209	Was the fast or difficulty of breathing due to problem on the chest or blocked runny nose?	chest only……..….1 nose only……...2 both……...3	
Q.210	Now I would like how much was given to drink during illness with cough/fever?	Much less than usual…….1 somewhat less…….…... 2 about the same ……. 3 more……...4 Nothing to drink…….5	
Q.211	Has (name) had diarrhea in the last 2 weeks?	Yes…….1 No…….2	If No ,skip to Q.215

Q.212	What is the type of diarrhea?	Watery……...1 Dysentery …….2 Persistent (Diarrhea greater than 2 week……3	
Q.213	Now I would like to know how much (name of fluid) was given to drink during diarrhea Were you given less than usual to drink, about the same amount or more than usual to drink? If less probe were you given much less than usual to drink or somewhat less?	less than usual……1 somewhat less……2 about the same……3 more……...4 Nothing to drink…….5	

Q.214	When you had diarrhea ,were you given less than usual to eat, about the same amount ,more than usual or nothing to eat	much less than usual……1 somewhat less than usual…….2 about the same…….3 more…….....….4 stopped food /nothing to eat ……5	
Q.215	Has (name) had Vomiting in the last two week?	Yes……....1 No …….2	If No ,skip to Q.217
Q 216	When you had vomiting ,were you given less than usual to eat/drink, about the same amount ,more than usual	much less than usual……1 somewhat less than usual…….2 about the same…….3	

	or nothing to eat/drink	more…….....….4 stopped food ……5	
Q.217	Where do you seek treatment for the above symptoms?	health facility of the orphanage…….1 health facility outside the orphanage…….2 inside their home (orphanage) …….....3 Don't seek treatment……..... ….4 others(specify)……. …5	
Q.218	Has (name) had taken any drug for chronic illness?	yes …….1 No ……...2	If No ,skip to Q.301

Q.219	If the answer is yes to Q No 218 (revise later the document about the type of chronic illness and the medication taken by this child)	Name of the Illness _____and medication taken including prophylaxis) _____	

Part III: **Questions to assess the Dietary intake of children (respondent children)**

Q.301	How many meals you provided regularly	…….no of meals	
Q.302	Has (Name) does not eat breakfast yesterday before coming to school?	Yes…….1 No……2	
Q.303	Has Name satisfy his /her appetite with the meal that he/she is taking?	Yes……...1 No ……..2	
Q 304	Has (Name) provided with a snack?	Yes…….1 No ……..2	If no skip to Q .306

Q 305	How many times in a day has(Name)provided with a snack	……..	
Q.306	Did you miss one of your meal in the last 24 hour?	Yes……1 NO ……2	

Part IV: **questions to assess the Care and support given to the orphanage and the services given for raring of children (respondent orphanage administration)**

Q.401	Is there any support given to the orphanage?	Yes…….1 No…….2	If no skip to Q 405
Q.402	What type of Support is Provided by other organizations (persons)? (more than one answer is possible)	Food and Nutrition……1 Health Care……2 Income generating activities…….....3 Educational support…….....4 Psychosocial Support……...….5 Legal Protection…….....6 Shelter and Care…….7 No support provided ……. 8 Other (specify)……...9.	

Q.403	If Food and Nutrition, what type of support is provided?	Nutritional assessment and supplementary feeding ……...1 Link to other health and nutrition interventions…….….2 Training on Nutrition, Diet and food preparation for care takers…….....3 other(specify)……...….4	
Q.404	If Health Care, what type of Support is provided?	Free access to Health services for OVC and guardians…….…....1 Regular home visits to assess health status of the child…….…2 Training to caregivers on the importance of immunization, hygiene and sanitation, and optimal nutrition…….3 other (specify)……..……..4	
Q.405	Please, express your View as to the Adequacy of support?	Adequate…….1 Not adequate……2	

Q.406	What is the main source of drinking water for members of your orphanage?	piped water……1 piped into dwelling……....2 piped to yard/plot…….....3 public tap/stand pipe…….….4 Bottled water …….…...5 Other (specify)……..…….6	
Q .407	What is the main source of water used by your orphanage for other purposes such as cooking and hand washing?	piped water……...….1 piped into dwelling……... 2 piped to yard/plot……..... 3 public tap/stand pipe…..…… 4 Bottled water ……5 Other (specify)…… ……..6	
Q.408	Do you do anything to the water to make it safer to drink?	Yes……...…1 No ……2	If No, skip to Q. 410
Q.409	What do you usually do to make the water safer to drink?	Boil . . . . ……. ……1	

		Add Blech /chlorine/water guard ……..….2 Strain through cloth…….3 Bio sand /composite/ceramic pot filter…….....…….4 solar disinfection……..……....5 Other (specify)……..…….6	
Q.410	Where do Your orphanage dispose Domestic waste?	Pit…….……1 Open……..…2 Municipality Service…….…….……3 Other (Specify)…….…….4	

Q.411	Does your orphanage have a Hand washing facility near the dining room	Yes……1 No ……..……2	
Q.412	Does your orphanage have a Hand washing facility near the toilet area?	Yes……..……1 No……..…2	
Q.413	In your orphanage is there any children who are given supplementary or different meals?	Yes……..……1 No……..…2	If No, skip to Q.416
Q .414	Who are given Supplementary (different) meals in your orphanage?	Gir1s……1 Boys……...2 Young children(age)…….3 Older children(age)……4 Children who are sick …….5	

		No different meal is provided ……6 Other (specify)…….7		
Q. 415	If different meals are given please tell me the type of meal and when is given?	Type of meal	when given(time of the day, week etc.	
Q.416	Is there any special menu provided for the orphanage children	Yes……...1 No…….2		If no skip to 418
Q.417	What type of special menu and when it is given?	Type of meal	When given	
Q.418	Is there any Dietarian in your orphanage?	Yes……1 No……2		If no skip to 501
Q.419	How many Dietarian are there in your orphanage?	…….		

Part V: Anthropometric Measurements

	Childs measurement	1st measurement	2nd measurement	Average measurement
Q.501	Height of the child in cm			
Q.502	Weight of the child in kilogram			

Thank you for your participation

በፍቃደኝነት የተሳታፊነት መረጃ እና የስምምነትቅፅ

ጤና ይስጥልን እንደምን አደሩ/ዋሉ? ስሜ----------ይባላል።እኔ እምሠራው

ከሀናአደራው(አጥኚው አካል) ጋር ነው።ሀና አደራው በአዲስ አበባ ዩኒቨርስቲ ጤና ሣይንስ ኮሌጅ የድህረ ምረቃ ት/ቤት ሁለታኛ ዲግሪ ተማሪ ስትሆን እርሶ ና በዚህ ማሳደግያ ያሉ በትምህርት ቤት እድሜ ክልል ውስጥ ያሉ ልጆች በጥናቱ ላይ መሳተፍ በእርሶ የሚወሰን በመሆኑ ከዚህ በታች ያለውን መረጃ በማንበብ ለመፈረሚያ በተዘጋጀው ቦታ ላይ ጥናቱ ላይ ለመሣተፍ ስምምነትዎትን እንዲገልፅሉን በትህትና እንጠይቃለን።

የጥናቱርዕስ፡

በትምህርት ቤት አድሜ ክልል ባሉ ወላጆቻቸውን በሞት ሳቢያ ላጡ እናተጋላጭ የሆኑ ልጆችን የስነ-ምግብ ደረጃቸውን እና ተዛማጅ ጉዳዮችን ማጥናት ነው።

የጥናቱአላማ፡-ጥናቱ የሁለተኛ ድግሪ የመመረቂያ ፁሁፍ አካል ሲሆን ለጥናቱ በትምህርት ቤት አድሜ ክልል ያሉ ወላጆቻቸውን በሞት ያጡ እና ተጋላጭ የሆኑ ልጆች የሥነ-ምግብ ደረጃ አሥፈላጊ የሆነ ሣይንሣዊ መረጃ ይሰበስባል።

የተሳትፎ አካሄድና መመርያ፡

የእርስዎ ና ማሳደጊያ ውስጥ የሚኖሩ ልጆች ለጥናቱ መመረጥ በአጋጣሚ ነው። ጥናቱ የሚካሄደው ቀደም ብሎ ለዚህ ጥናት ታሰቦ በተዘጋጀው የጥያቄ መጠይቅ ነው ጥያቄውን ለመሙላት 30 ደቂቃ ያህል ሊወስድ ይችላል ስለሆነም መጠይቁ በሠአት ሞልተው እንድትመልሱልን በትህትና እንጠይቃለን። ሆኖም ግን ልጅ በጥናቱ ላይ ለመሣተ ፍ ፈቃደኛ ካልሆነ/ች መጠይቁን በጠረጴዛ ላይ ወደታች በመገልበጥ መውጣት ትችላለች/ይችላል። በመጨረሻም የልጅ የሰውነት ክብደት ና አካላዊ ቁመት ይለካል። ይህምከ10 ደቂቃ በላይ አይወስድም፡

<u>ሚስጥር የመጠበቅ ሁኔታ</u> ጥናቱን አስመልክቶ ከእርሶ ና ከልጅ የሚገኘው ማንኛውም መረጃ በሚስጥር የሚጠበቅ በመሆኑ በማንኛውም መንገድ ለሶስተኛ አካል ተላልፎ አይሰጥም ወይም አይገለጥም የእርሶ ልጅ ማንነትም እንዳ ይታወቅ ስሟ በጥያቄው መልስ መስጫ ወረቀት ላይ አይመዘገብም።

የጥናቱ ሰጋት ጥቅምና ጉዳት፡-እርስዎና ማሳደጊያ ውስጥ ያሉ ህፃናት በጥናቱ ላይ በመሳተፋችሁ የሚከፈል ምንም ክፊያ ወይም የተለዩ ጥቅም አይኖርም ነገር ግን በጥናቱ ላይ በመሣተፍ ለሚጠየቀው /ለምትጠየቀው ጥያቄ በዕውቀት ላይ የተመሠረተ ተገቢ መረጃ መሰጠቱ/ትዋ በትምህርት ቤት አድሜ ክልል ባሉ ወላጆቻቸውን በሞት ያጡ እና ተጋላጭ የሆኑ ልጆችየሥነ- ምግብ ደረጃ ላይ ለውጥ ያመጣል። በጥናቱ ላይ በመሣተፍ ምክንያት ምናልባትም ጥያቄዋችን ለመመለስ የሚተባበሩን ጥቂት የጥናት ግዜ ካለሆነ በስተቀር በእርሶም ሆነ በልጅ ላይ የአካልም ሆነ በአይምሮ ላይ የሚከሠት ምንም ዓይነት ጉዳት የለም።

የተሣታፊው/ዋ መብት፡ የልጁ/ቷ በጥናቱ ላይ ለመሣተፊ ሙሉበሙሉ በራስዎፍላጉት ና ፍቃደኝነት ላይ የተመሰረተ ነው። ከመጀመርያው በጥናቱ ላይ ላለመሣተፍ እንዲሁም መሳተፍ ጀምራም በመሐል ለማቋረጥ መብቱ/ዋ ሙሉበሙሉ የተጠበቀ ነው። የልጁ/ቷ በጥናቱ ላይ ለመሳተፍ ፍቃደኛ ብትሆንም ባትሆንም በልጁ/ቷ ላይ እንዲሁም በትምህርቱ/ቷ ላይ ሊያሳደር የሚችለው ተጽዕኖ የለም። ለማታውቀው ጥያቄም መረጃ እንድትሰጥ/ እንዲሰጥ አይገደድም/አትገደድም። ጥናቱን በተመለከተ ማንኛውም አይነት ጥያቄ ቢኖረዎት በሚቀጥለው አድራሻ በመጠቀም መጠየቅ ይችላሉ።

በጥናቱ ላይ እና በሂደቱ ጥያቄ ወይም አንዳች እክል ካጋጠመዎት ሀና አደራው(አጥኚውአካል)ስልክ. ቁ 0913946969 ወይም በአዲስ አበባ ዩንቨርስቲ የኢንስቲቲውሽናል ሪቪው ቦርድ ክፍል ሃላፊ በስልክ ቁጥር ……, ፖ.ሣ.ቁ ……. ብለው ማግኘት ይችላሉ

<u>የወላጅ/የአሣዳጊ ተሳታፊነት ና የፍቃደኝነት ማረጋገጫ ቅፅ</u>

እኔ ና በዚህ ማሳደግያ ያሉ በትምህርት ቤት እድሜ ክልል ውስጥ ያሉ ወላጅ አልባ ልጆች በጥናቱ ላይ እንድንሣተፍ በጥናት አጥኝው አካል በተሠጠኝ ግንዛቤ መሠረት የእኔ ና በዚህ ማሳደግያ ያሉበት ትምህርት ቤት እድሜ ክልል ውስጥ ያሉ ወላጅ አልባ ልጆች ስም በጥያቄ መልስ መሰጫ ወረቀት ላይ እንደማይፃፍ ና ከእኛ የሚገኘው መረጃ ለሌላ ምክንየት እንደማይውል እና በማንኘውም መልኩ ጉዳት የማያደርስብን ከመሆኑም ባሻገር የሚሰበሰበው መረጃ በትምህርት ቤትአድሜ ክልል ባሉ ወላጆቻቸውን በሞት ያጡና ተጋላጭ በሆኑ ልጆች የሥነ-ምግብ ደረጃ ለውጥ እንደሚያመጣ እና ሌሎች ተያየዥ ጉዳዮች ዙሪያ ማብራሪያ ተደርጎልኛል። ስለዚህ በጥናቱ ላይ ለመሳተፍ ፈቃደኛ ከሆኑ ፊርማዎትን፡

የማሳደግያው ሀላፊ ስምና ፊርማ ---------- ቀን----------

ፈቃደኛ ስለሆኑ አመስግን

የመረጃ ሰብሳቢው ስምና ፊረማ ---------- ቀን ----------

<u>በትምህርት ቤት አድሜ ክልል ባሉ ወላጆቻቸውን በሞት ሳቢያ ላጡ እና ተጋላጭ የሆኑ ልጆችን የስነ-ምግብ ደረጃቸውን እና ተዛማጅ ጉዳዮችን ማጥናት የተዘጋጀ የጥናት መረጃ መሰብሰቢያ መጠይቅ</u>

ይህጥናትየሚካሄደውበአዲስአበባዩኒቨርስቲበማህረሰብጤናትምህርትክፍልለማስተርስዲግሪማሟያያሲሆን የጥናቱአላማበትምህርትቤትአድሜ ክልል ባሉ በህፃናትማሳደጊያውስጥበሚኖሩወላጆቻቸውን በሞት ሳቢያ ላጡ እና ተጋላጭ የሆኑ ልጆችን የስነ-ምግብ ደረጃቸውን እና ተዛማጅ ጉዳዮችን ለማጥናት ነው።መጠይቁስድስትክፍሎችሲኖሩትየማህበራዊእናስነምጣኔመጠይቆች፣የግልንፅህና፣የጤናሁኔታ፣ምግብ እናየአመጋገብሁኔታ፣ድጋፍናእንክብካቤእናአካላዊ ልኬትንያካትታል።

መለያ
የህፃናትማሳደጊያውስም _____ የቃለመጠይቅአድራጊውስም_____ ፈርማ _____ ቃለመጠይቅየተካሄደበት ……/……/……/ ቀን /ወር_/ዓ.ም የቃለመጠይቅውጤት: 1- የተጠናቀቀ 3- ያልተስማሙ 2 በከፊልየተጠናቀቀ 4- በመጠይቅወቅትያልተገኙ ያረጋገጠው አስተባባሪ ስም _____ ፈርማ _____ ቀን_____

ክፍልአንድ፡-ማህበራዊናየሥነ-ምጣኔመጠይቆች

(ተጠያቂውበትምህርትቤትውስትያሉወላጅአልባእናተጋላጭህፃናት

ቁጥር	ጥያቄ	የመልስኮድ	እለፍ
Q.101	የልጁጾታ?	ወንድ……1 ሴት…….……2	
Q.102	የልጅዕድሜ	……(በአመት)	
Q.103	ልጁየተከታለውከፍተኛየትምህርትደረጃ	አፀደህፃናት……..……..……1 አንደኛደረጃ……..2 ሁለተኛደረጃ……3	
Q.104	ልጁበዚህደረጃያጠናቀቀውከፍተኛውየትምህርትክፍልደረጃ	_____	
Q.105	የልጁወላጆችበህይወትአሉ ?	አወ …..……`1 አየደለም ……..2	መልሱአይደ 108 ይለፍ
Q.106	“የልጁወላጅእናትበህይወትአሉ?”	አወ……`1 አየደለም ……..……2	
Q.107	“የልጁወላጅአባትበህይወትአሉ	አወ ……`1 አየደለም ……..……2	
Q.108	ልጁወደዚህማሳደጊያየከመምጣቱበፊትሌላማሳደጊያውስጥይኖርነበር	አወ……`1 አየደለም……..2	መልሱአይደ 110 ይለፍ
Q.109	ልጁማሳደጊያውውስጥምንያህልአመታት /ወር/ቀንቆየ ?	አመተ ምህረት /ወር/ቀንቆየ ?--------/-------/-----	

Q.110	ልጁበአጠቃላይምንያህልግዜማሳደጊያውውስጥቆየ?	_____ አመት	

ክፍልሁለትየግልንፅህናእናየጤናሁኔታመጠየቂያ (መላሾችልጆች)

Q.201	ትላንትናምግብከመብላትህ/ትሽበፊትእጅህን/ሽንታጥበሃልን/ሻልን?	አ አ
Q 202	ትላንትናምግብከመመገብህበፊትእጅህንለመታጠብምንተጠቅመሀል	ዉ ዉ
Q.203	ትላንትናከመፀዳጃቤትመልስእጅህንታጥበሃልን?	አ አ
Q 204	ትላንትናከመፀዳጃቤት ከወጣህበኋላእጅህንለመታጠብምንተጠቅመሀል ?	ዉ ዉ
Q 205	ባለፈው ሁለት ሳምንት ውስጥ ልጁ ታሞ/ታማ ያውቃል/ታውቃለች?	አ አ
Q.206	ባለፈውሁለትሳምንትግዜውስጥልጁየትኩሳትበሽታታሞ/ታማነበር ?	አ አ
Q.207	ባለፈውሁለትሳምንትጊዜውስጥልጁየሳልበሽታታሞ /ታማነበር?	አ አ

Q.208	የሳልበሽታበነበረብህ /በነበረብሽወቅትከተለመደውውጭቶሎቶሎትተነፍስ/ሽነበርወይምየመተንፈስችግርአጋጥሞህ/ሽነበር?	አ አ
Q.209	በፍጥነትየሚያሰተነፍህ/ሽችግርየገጠመህ/ሽደረትህ/ሽላይበተፈጠረችግርወይስአፍንጫህበንፍጥመሞላትነው ?	የ አ በ
Q.210	አሁንየሳልወይምየትኩሳትበሽታበታማምህ/ሽግዜስለተሰጠህ/ሺፈሳሽመጠንልጠይቅህ/ሽእወዳለሁ ከተለመደውበጣምያነሰ ከተለመደውበመጠኑያነሰ ከተለመደውጋርተመሳሳይነው ከተለመደውየበለጠ ምንምየሚጠጣነገርአለመኖር	ከ ከ ከ ከ ም
Q.211	ባለፈውሁለትሳምንትውስጥየተቅማጥበሽታአጋጥሞህ/ሽነበር?	አ አ
Q.212	ባለፈውያጋጠመህ/ሽየተቅማጥበሽታምንአይነትነበር ?	ዉ ደ ከ
Q.213	አሁንምንያህልፈሳሽተቅማጥበታመምህግዜእንዳተሰጠህ/ሽልጠይቅህ/ሽእወዳለሁ ከተለመደውበጣምያነሰ	ከ ከ

	ከተለመደውበመጠኑያነሰ ከተለመደውጋርተመሳሳይነው ከተለመደውየበለጠ ምንምየሚጠጣነገርአለመኖር	ከ ከ ም
Q.214	ተቅማጥበሽታከያዘህ/ሽበታላምግብአወሳሰድህ /ሽበአብዛኛውከምትመገበው/ቢውበታችነው፣ተመሳሳይነው፣ከሁልጊዜውይበልጣል፣ምግብመመገብማቆም	ከ ከ ከ ከ ም
Q.215	ባለፈውሁለትሳምንትጊዜየትውከትበሽታአጋጥመህ/ሽነበር	አ አ
Q.216	የትውከትበሽታከያዘህ/ሽበታላምግብ/ፈሳሽአወሳሰድህ /ሽበአብዛኛውከምትመገበው/ቢውበታችነው፣ተመሳሳይነው፣ከሁልጊዜውይበልጣል፣ምግብ/ፈሳሽመመገብማቆም	
Q.217	ለህመሙህ/ሽህክምናለማግኘትየትሄድህ/ሽ ?	በ ከ በ ወ ሌ
Q.218	ልጁ/ቷለቆየበሽታለረጂምጊዜየሚወስደው/የምትወስደው መድሃኒትአለ?	አ አ
Q.219	ለጥያቄቁጥር 218 መልሱአወከሆነመሀደሩንበማየትየበሽታንአይነትናየምትወስደውንየመድሀኒትአይነትፃፍ/ፊ	የ

		የዓ

Part III: ምግብና የአመጋገብ ሁኔታ(መላሾቹህጻናትበተከንከባካቢዎችአየታገዙ)

Q.301	ልጅ/ልጅቷበቋሚነትበቀንስንትጊዜይመገባል/ትመገባለች?	በቀን ____ጊዜ	
Q.302	ልጁ/ልጅቷበትናንትናውእለትትምህርትቤትከመሄዱበፊትቁርስተመግቦነበር?	አወ ……1 አየደለም……2	
Q.303	ልጁ/ልጅቷየሚመገበውምግብየምግብፍለጎቱንያሟላነው	አወ……1 አይደለም …….2	
Q.304	ልጁ/ልጅቷመቅሰስይመገባል/ትመገባለች	አወ…….1 አይደለም……2	
Q.305	ልጁ/ልጅቷምንያህልግዜመቅሰስይመገባል/ትመገባለች	----------	
Q.306	ልጁ/ልጅቷበበትናንትናዉእለትከቁርስ፣ከምሳ፣ከእራትአንዱንአልተመገበም	አወ…….1 አይደለም……..2	

Part V: **ድጋፍና እንክብካቤ (መላሾችየማሻደጊያውአስተዳደር)**

Q.401	የወላጅለልባህፃናት ማሳደግያውየሚያገኛውድጋፍአለ	አወ…….1 አይደለም……..2
Q.402	የእርዳታድርጅቱየተደረገለትድጋፍምንምንነበር?	የስነምግብ ……..……..1 የሕክምና …… የገንዘብናየገቢማስገኛ……... የትምህርትቁሳቁስ ……..……4 የምክርአገሌግልት……5 የህግከለላ ……..…6 የመጠለያናእንክብካቤ…….....7 ምንምአይነትድጋፍየለም…….8

Q.403	የምግብድጋፍየሚያገኙከሆነ፣በምንመንገድድጋፉንያግኙነበር?	የምግብእጥረትንበመዳሰስየአሌሚምግብአርዳታበማ የስነምግብናየጤናፕሮገራሞችጋረግንኙነትበማጠናከር ለአሳዳጊወቸየስነምግብአያያዘናአዘገጃጀትስሌጠናመስ
Q.404	የሕክምናድጋፍየሚያገኙከሆነ፣በምንመንገድድጋፉንያግኙነበር	ነፃየሕክምናአገልግሎትበመስጠት…… ቤትለቤትበመሄድየህፃኑ/ኗጤንነትበማየት …… ለአሳዳጊወች ስለ ግልንጽህናስልጠናበመስጠት……
Q.405	በእርስዎግምትድጋፎችበቂናቸውብለውያስባሉ	በቂናቸው……1 በቂአይደሉም……2

Q.406	የማሳደጊያውዋነኛየመጠጥውሃምንጭከየትነው	የቧንቧ የተከለ ያልተከ የተከለ ያልተከ የታሸገ ሌላካለ
Q 407	በማሳደጊያውዉስጥበዋናነትለምግብማብሰያ፣ለእጅመታጠብያእናለሌሎችተግባራትየሚጠቀሙበትዉሃምንድንነዉ	የቧንቧ የተከለ ያልተከ የተከለ ያልተከ የታሸገ ሌላካለ
Q.408	የመጠጥዉሃድህንነቱየተጠበቀእንዲሆንየምታደርጉትነገርአለ ?	አወ.... አይደለ
Q.409	የመጠጥውሃውደህንነቱየተጠበቀእንዲሆንበአብዛኛውምንትጠቀማላቹህ	ማፍላ

		ውሃአ በልብስ ከፀሀይ ሌላካላ
Q.410	የህፃናትማሳደጊያውከማሳደጊያውየሚወጣውንቆሻሻየሚያስወግደውየትነው ?	የቆሻሻ ሜዳላይ የቆሻሻ ሌላካለ
Q.411	ከልጆችመመገቢያአዳራሽጎንየእጅመታጠብያአለ?	አወ.... አይደለ
Q.412	ከመፀዳጃቤትአጠገብየእጅመታጠብያአለ	አዎ.... አይደለ
Q 413	ማሳደጊያውዉስጥተጨማሪ(አልሚምግብየሚሰጣቸውልጆችየኖሩይሆን	አወ.... አይደለ
Q.414	ተጨማሪወይምአልሚምግብየሚሰጡልጆችየትኞቹናቸው ?	ሴቶች. ወንዶች በእድሜ በእድሜ የተለየ ሌላካለ
Q. 415	አልሚወይምተጨማሪምግብየሚሰጥከሆነመችእናምንአይነትምግብእንዲወስዱየደረጋል ?	የምግ
Q.416	በማሳደጊያውውስጥለሚኖሩለሁሉምልጆችየሚዘጋጅከተለመደውየተለየየምግብአይነትአለ?	አወ.... አይደለ
Q.417	ምንአይነትምግቦችንነዉየምትሰጡት	የምግ

Q.418	በማሳደጊያውውስጥየስነምግብባለሙያዎችአሉ	አወ…. አይደለ
Q.419	በማሳደጊያውውስጥምንያህልየስነምግብባለሙያዎችአሉ	……

<u>ክፍል 6 የህፃኑ አካላዊ ልኬት</u>

	ልኬት	1ኛልኬት	2ኛልኬት	አማካይልኬት
Q.501	የህፃኑቁመትበሴ.ሜ .			
Q.502	የህፃኑክብደትበኪ.ግራም			

ለተሳትፎዎ ከልብ እናመሰግናለን!!!

10 CURRICULUM VATE (CV)

First Name	Middle Name	Last Name	
HANNA	ADERAW	MIHIRATEA	
Date of birth Day Mo Yr 25 1 1990	Place of Birth Addis Ababa ,Ethiopia	Sex Female	Address Tel 0913 946969/0911396654 Email hanyaderaw@gmail

EMPLOYMENT STATUS (WORK EXPERIENCE)

PLACE OF WORKADDIS ABABA PRISON ADMINISTRATION WOMENS CORRECTIONAL AND REMAND PRISON ADMINSTARATION

- ✓ AS HEALTH OFFICER from 2013 TO 2014 AND
- ✓ AS DISEASE PREVENTION AND HEALTH PROMOTION CASE TEAM LEADER FROM 2014 TO 2017
- ✓ AS A DATA COLLECTOR (INTERVIEWER) FROM 2017 TO 2018

DESCRIPTION OF DUTIES
Preventive ,curative and Rehabilitative service for the patients(clients) and giving and organizing trainings

LANGUAGES

	READ		WRITE		SPEAK		UNDERSTAND	
	Easily	Not Easily	Easily	Not Easily	Easily	Not Easily	Easily	Not Easily
ENGLISH	✓		✓		✓		✓	
AMAHARIC	✓		✓		✓		✓	

EDUCATIONAL BACKGROUND AND CERTIFICATES OBTAINED .

NAME, PLACE AND COUNTRY	ATTENDED FROM/TO		DEGREES , ACADEMIC DISTINCTIONS AND CERTIFICATES OBTAINED	MAIN COURSE OF STUDY
	Mo./Year	Mo./Year		
DEBRE BIRHAN UNIVERSITY ,DEBRE BIRHAN	*2008*	*2012*	*BSC in public health officer with distinction (3.46 GPA)*	*HEALTH SCIENCE ,HEALTH OFFICER*
DEBRE MARKOS PREPARATORY SCHOOL,DEBRE MARKOS	2004	2007	12TH CERTIFICATE (COMPUTER)	
TEKLEHAYMANOT SECONDARY SCHOOL,DEBRE MARKOS	2003	2004	10TH CERTIFICATE	

ABEMA ELEMENTARY SCHOOL,DEBRE MARKOS	1995	2002	8TH CERTIFICATE	
EPHIA INTERVIWER SUCCESSFUL ACCOMPLISHMENT CERTIFICATE				

REFERENCES

FULL NAME	FULL ADDRESS	BUSINESS OR OCCUPATION
DR ALEMU ASGEDOM(MD PSYCHATRIST)	**ADDIS ABABA** **TEL NO**	**DIRECTORIATE DIRECTOR OF DISEASE PREVENTION AND HEALTH PROMOTION in FEDERAL PRISON ADMINSTRTAION**
DR LEMMA TEFERA (MD)	**ADDIS ABABA** **TEL NO** **0911406138**	**MEDICAL DIRECTOR OF FEDREL PRISON ADMINSTRATION GENERAL HOSPIAL**
ATO TESHOME YIGREMEMEW(BSC.MSC)	**ADDIS ABABA** **TEL NO** **0943082029**	**DEBRE BERHAN UNIVERSITY LECTURER**

I have excellent reference and I would be delegated to discusses any possible vacancy with you at your convenience

Briefly my qualifications include

I have taken / given

- ✓ Syndrome case management of sexually transmitted infections training of trainers (SCM of STI TOT) organized by Federal in Ministry of Health in collaboration with university of California san Diego Ethiopia (UCSD-E) healed from July 22-27,2013 at Adama ,Ethiopia (Trainer)
- ✓ Training on infection prevention and patient safety (IP/PS) organized by federal prison administration in collaboration with ministry of health (FMOH) in Addis Ababa
- ✓ Prevention of mother to child transmission of HIV (PMTCT)organized by federal prison administration in collaboration with federal police Hospital in Addis Ababa
- ✓ Physician initiated counseling and testing (PICT) organized by federal prison administration in collaboration with (UCSD-E)
- ✓ Health management information system training of trainees (TOT) organized by federal prison administration in collaboration with ministry of health(FMOH) in Addis Ababa (trainer)
- ✓ Mental Health gap base and standard course training organized by federal prison Administration and international committee of the red cross (ICRC) and st ammanuel mental specialized Hospital